



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
RESEARCH TRIANGLE PARK, NC 27711

MAY 15 2012

OFFICE OF  
AIR QUALITY PLANNING  
AND STANDARDS

Colonel Patrick C. Higby, Commander  
7285 4<sup>th</sup> St., Bldg. 180, Suite 115  
Hill Air Force Base, UT 84056-5206

Dear Colonel Higby:

In your July 22, 2010, letter and through follow-up clarification with Steve Rasmussen of Hill Air Force Base, you requested approval to use the Standard Test Method for Determining the Opacity of a Plume in the Outdoor Ambient Atmosphere, ASTM D7520-09, in lieu of EPA Method 9 to meet opacity measurement requirements for Federal New Source Performance Standards (40 CFR Part 60) and National Emission Standards for Hazardous Air Pollutants (40 CFR Part 63) regulations at your facility.

We approve your request for the use of ASTM D7520-09 in lieu of EPA Method 9 for demonstrating compliance with Federal opacity regulations under any subpart to 40 CFR Part 60, 61, and 63 regulating ducted emission sources that fall within the ASTM D7520-09 method's scope as set out in Section 1 at Hill Air Force Base with the following limitations:

1. During the digital camera opacity technique (DCOT) certification procedure outlined in Section 9.2 of ASTM D7520-09, you or the DCOT vendor must present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue sky, trees, and mixed backgrounds (clouds and/or a sparse tree stand).
2. You must also have standard operating procedures in place including daily or other frequency quality checks to ensure the equipment is within manufacturing specifications as outlined in Section 8.1 of ASTM D7520-09.
3. You must follow the record keeping procedures outlined in section 63.10(b)(1) for the DCOT certification, compliance report, data sheets, and all raw unaltered JPEGs used for opacity and certification determination.
4. You or the DCOT vendor must have a minimum of four (4) independent technology users apply the software to determine the visible opacity of the 300 certification plumes. For each set of 25 plumes, the user may not exceed 15% opacity of any one reading and the average error must not exceed 7.5% opacity.

5. This approval does not provide or imply a certification or validation of any vendor's hardware or software. The onus to maintain and verify the certification and/or training of the DCOT camera, software and operator in accordance with ASTM D7520-09 and this letter is on the facility, DCOT operator, and DCOT vendor.
6. This approval does not alter any duration or averaging requirements of any specific regulation.

Since this alternative method is applicable to other facilities, we will be posting this letter on our website at <http://www.epa.gov/ttn/emc/approalt/> for use by other interested parties.

If you have questions or would like to further discuss the matter, please call Jason DeWees at (919) 541-9724, or you may email him at [deweese.jason@epa.gov](mailto:deweese.jason@epa.gov).

Sincerely,



Conniesue Oldham, Ph.D, Group Leader  
Measurement Technology Group

cc: James B. Martin, Region 8  
Utah, UDAQ  
Steve Rasmussen, Hill AFB  
EPA Regional Air Division Directors